

CLAIMS

1. A DNA selected from the group consisting of:

(a) a DNA encoding a protein consisting of the amino acid sequence

5 described in SEQ ID NO: 2 or 4;

(b) a DNA comprising the coding region of the base sequence described in SEQ ID NO: 1 or 3;

(c) a DNA encoding a mutant protein consisting of the amino acid sequence described in SEQ ID NO: 2 or 4 wherein one or more amino acids are substituted, deleted, inserted, and/or added, said mutant protein being a functional equivalent to the protein consisting of the amino acid sequences described in SEQ ID NO: 2 or 4; and

(d) a DNA hybridizing to the DNA consisting of the base sequence described in SEQ ID NO: 1 or 3, and encoding a protein that is a functional equivalent of the protein consisting of the amino acid sequence described in SEQ ID NO: 2 or 4.

2. A vector in which the DNA of claim 1 is inserted.

3. A host cell carrying the vector of claim 2.

4. A protein encoded by the DNA of claim 1.

20 5. A method for producing the protein of claim 4, which comprises the steps of:

culturing the host cells of claim 3, and

recovering the expressed protein from said host cells or from the culture supernatant thereof.

25 6. An antibody binding to the protein of claim 4.

7. A partial peptide of the protein of claim 4.

8. A nucleotide that hybridizes with the DNA consisting of the base sequence described in SEQ ID NO: 1 or 3, or the complementary strand thereof, having a chain length of at least 15 bases in length.

30 9. A method of screening for a compound that binds to the protein of claim 4, comprising the steps of:

(a) exposing a test sample, containing at least one compound, to the protein of claim 4 or partial peptides thereof, and

(b) selecting the compound that binds to the protein of claim

35 4 or partial peptides thereof.

10. A compound that binds to the protein of claim 4, wherein said

- compound can be isolated using the method of claim 9.
11. The isolated compound of claim 10, wherein said compound is a naturally occurring compound.
12. The compound of claim 10, wherein said compound is a ligand, an
5 agonist or an antagonist.